REMARKS

Claims 11-21 remain pending in this application. Claims 11-21 are rejected. Claim 13 is objected to. Claims 11-13, 15, 16, 18 and 19 are amended herein to clarify the invention, to express the invention in alternative wording, to broaden language as deemed appropriate and to address matters of form unrelated to substantive patentability issues.

Applicants herein traverse and respectfully request reconsideration of the rejection of the claims and objection cited in the above-referenced Office Action.

The Examiner states that applicants are required to furnish drawings referenced in the application, and apparently which are considered by the Examiner as being absent from the application as filed. However, as clearly evidenced by the published application, available from the U.S. Patent and Trademark Office website (www.uspto.gov) and which was checked by applicants, the filed application contains all figures 1-15 of the application. Perhaps the drawings were simply separated from the specification in the Examiner's file. Therefore applicants respectfully submit that re-submission of the drawings is unnecessary, as the Patent Office is already in

possession of these originally filed drawings. However, if the Examiner's request has been misunderstood by the applicants, applicants will be happy to provide the Examiner with any further documentation he would like upon clarification of the alleged deficiency.

The Office Action states that the specification and abstract are objected to for various informalities. The specification is amended to correct various typographical, grammatical and idiomatic informalities including those noted in the Office Action, and to make heading corrections. A substitute abstract is also provided herewith on a separate sheet. No new matter is added. Withdrawal of the objections is respectfully solicited.

Claim 13 is objected to for a noted informality. Claims 13 is amended to address this issue, and therefore withdrawal of the objection is respectfully solicited.

Claim 11 is rejected under 35 U.S.C. § 112, first paragraph, for containing subject matter lacking an adequate written description in the specification. Claim 11 is amended to clarify that the variable induction coil is not actually "integral" with the mobile body, but rather that the mobile body is reactive with a variable inductor

housed in the target by inclusion of a highly permeable strip associated with the mobile body. Therefore, reconsideration of the rejection of claim 11 and its allowance are earnestly requested.

Claims 11-12 and 15 are rejected under 35 U.S.C. § 102(b) as being anticipated by French et al. (US 4,761,005). Applicants herein respectfully traverse these rejections. "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim*." ***Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.***, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). It is respectfully submitted that the cited reference is deficient with regard to the following.

Independent claim 11 recites in pertinent part the following:

> a first sensor integral with the target for detecting whether the target has been impacted by the mobile body and producing an electric image of the impact, the first sensor comprising a variable capacitor; and

a second sensor for detecting whether the mobile body grazes the target or strikes it, the second sensor comprising a variable induction coil housed in the target which is reactive to an element associated with the mobile body having properties permeable to a magnetic field of the variable induction coil.

Applicants respectfully submit that the Examiner's characterization of the piezoelectric sensor of French et al. as being indicative or inclusive of the variable capacitor of first sensor (A) according to the claimed invention is misplaced. Rather, the referred to KYNAR material (col. 7, lines 1-10) generates a voltage, piezoelectrically, in response to applied stress. Applicants have carefully reviewed the cited reference, and can find no indication in the cited French et al. reference of any variance in capacitance in response to a received blow, as claimed. Since the spacing in the piezoelectric sensor between the opposed conductive metal layers 26, 28 remains a constant as being separated a set distance by the interposed PDVF film

layer 24, operation thereof as a variable capacitor is not only not suggested, but indeed precluded.

In view of the above, it is respectfully submitted that claims 11-12 and 15 particularly describe and distinctly claim elements not disclosed in the cited reference. Therefore, reconsideration of the rejections of claims 11-12 and 15 and their allowance are respectfully requested.

Claims 13-14 are rejected under 35 U.S.C. §103(a) as obvious over the French et al. reference in view of Le Thiec (US 5,065,093). Also, claims 16-17 are rejected under 35 U.S.C. §103(a) as obvious over the French et al. reference in view of Crouse (IBM 1,363,778). The applicants herein respectfully traverse these rejections.

It is respectfully submitted that the proffered combinations of references cannot render the rejected claims obvious because neither of the secondary Le Thiec and Crouse references provides the teaching noted above with respect to the anticipation rejection that is absent from the primary French et al. reference. Thus, the combinations of prior art references fail to teach or suggest all the claim

limitations, as properly required for establishing a *prima facie* case of obviousness. Therefore, reconsideration of the rejections of claims 13, 14, 16 and 17 and their allowance are respectfully requested.

Claims 18-21 are rejected under 35 U.S.C. §103(a) as obvious over the French et al. reference in view of Cook (US 6,056,674). The applicants herein respectfully traverse this rejection.

The secondary Cook reference is cited merely as providing storage of information in a 16-bit register and a 1-bit latch, respectively. The reference fails to provide claimed subject matter lacking in French et al., in particular, teaching relating to "providing a first sensor comprising a variable capacitor integral with the target for detecting whether the target has been impacted by the mobile body and producing an electric image of the impact, wherein impact of the mobile body on the capacitor varies capacity of the capacitor." As noted above, French et al. only discloses KYNAR material (col. 7, lines 1-10) which generates a voltage, piezoelectrically, in response to applied stress. Since the spacing in the piezoelectric sensor between the opposed conductive metal layers 26, 28 must remain a constant as being separated

a set distance by the interposed PDVF film layer 24, operation thereof as a variable capacitor is not possible, and therefore not suggested.

Thus, it is respectfully submitted that the rejected claims are not obvious in view of the cited references for the reasons stated above. Reconsideration of the rejection of claims 18-21 and their allowance are respectfully requested.

Applicants respectfully request a three (3) month extension of time for responding to the Office Action. Please charge the fee of $510 for the extension of time to Deposit Account No. 10-1250.

The USPTO is hereby authorized to charge any fee(s) or fee(s) deficiency or credit any excess payment to Deposit Account No. 10-1250.

In light of the foregoing, the application is now believed to be in proper form for allowance of all claims and notice to that effect is earnestly solicited.

Respectfully submitted,
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